

**SUPPLEMENTAL  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

Sheet	1	of	2
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**Complete if Known**

<b>Application Number</b>	10/608,404
<b>Filing Date</b>	June 26, 2003
<b>First Named Inventor</b>	Liu, et al.
<b>Art Unit</b>	1742
<b>Examiner Name</b>	Michael P. Alexander
<b>Attorney Docket Number</b>	APPM/005699.P3/PPC/CMP/CKIM

## U.S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

**Examiner  
Signature**

Date  
Considered

12-20-2005

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Sheet 2 of 2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
MPA	C1	Deshpande, et al., "Chemical Mechanical Planarization of Copper: Role of Oxidants and Inhibitors", <i>Journal of The Electrochemical Society</i> , pp. G788-G794 (2004).	
MPA	C2	Economikos, et al., "Integrated Electro-Chemical Mechanical Planarization (Ecmp) for Future Generation Device Technology", 2004 IEEE, pp. 233-235.	
MPA	C3	Goonetilleke, et al., "Voltage-Induced Material Removal for Electrochemical Mechanical Planarization of Copper in Electrolytes Containing NO <sup>-</sup> 3, Glycine, and H <sub>2</sub> O <sub>2</sub> , <i>Electrochemical and Solid-State Letters</i> , pp. G190-G193 (2005).	
MPA	C4	Steigerwald, et al., "Effect of Copper Ions in the Slurry on the Chemical-Mechanical Polish Rate of Titanium", <i>J. Electrochem. Soc.</i> , Vol. 141, No. 12, December 1994, pp. 3512-3516.	

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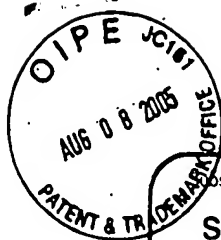
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Sheet 1 of 3

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Application Number	10/608,404
Filing Date	JUNE 26, 2003
First Named Inventor	LIU, et al.
Art Unit	1742
Examiner Name	MICHAEL P. ALEXANDER
Attorney Docket Number	AMAT/5699.P3/CMP/CMP/RKK

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)				
MP1	A1	US-6,893,476		5/17/2005	6,893,476	
	A2	US-2001/0016469		8/23/2001	Chopra	
	A3	US-2001/0052351		12/20/2001	Brown, et al.	
	A4	US-2002/0016064		2/7/2002	Komai, et al.	
	A5	US-2002/0130049		9/19/2002	Chen, et al.	
	A6	US-2003/0115475		6/19/2003	Russo, et al.	
	A7	US-2003/0116446		6/23/2003	Duboust, et al.	
	A8	US-2003/0178320		9/25/2003	Liu, et al.	
	A9	US-2003/0216045		12/20/2003	Wang, et al.	
	A10	US-2003/0234184		12/25/2003	Liu, et al.	
	A11	US-2004/0053499		3/18/2004	Liu, et al.	
	A12	US-2004/0144038		07/29/2004	Siddiqui	
	A13	US-2004/0248412		12/9/2004	Liu, et al.	
	A14	US-2005/0044803		3/3/2005	Siddiqui, et al.	
	A15	US-2005/0076578		04/14/2005	Siddiqui, et al.	
	A16	US-2005/0076579		04/14/2005	Siddiqui, et al.	
	A17	US-2005/0079718		04/14/2005	Siddiqui, et al.	
	A18	US-2005/0079803		04/14/2005	Siddiqui, et al.	
	A19	US-2005/0565378		3/17/2005	Chen, et al.	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)					
MP9	B1	EP 0 699 782		3/6/1996	Datta		
MP9	B2	EP 1 167 585		1/2/2002	Hong		
MP9	B3	JP 05 302199 (English abstract)		11/16/1993	Bridgestone Bekaert Steel		X
MP9	B4	JP 06 158397 (English abstract)		6/7/1994	Asahi Glass Co Ltd		X
MP9	B5	JP 10 121297 (English translation)		5/12/1998	Nippon Riironaale		X
MP9	B6	JP 58-093886 (English abstract)		6/3/1983	Tokoyama Soda Co Ltd		X
MP9	B7	JP 58-093899 (English abstract)		6/8/1983	Sumitomo Metal Land Ltd		X
MP9	B8	JP 01-77117 (English translation)		3/23/2001	Takeshi, et al.		X
MP9	B9	JP 2000 192298 (English abstract)		7/11/2000	Ebara		X
MP9	B10	JP 2000 256898 (English abstract)		9/19/2000	Permelec Electrode Ltd		X
MP9	B11	SU 1 618 538 (English abstract)		1/7/1991	Vladimir		X
MP9	B12	WO 02/88229		11/7/2002	Beulich, et al.		
MP9	B13	WO 02/75804		9/26/2002	Chen		
MP9	B14	WO 02/23616		3/21/2002	Wang		

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mpd	C1	International Search Report for PCT/US02/40754 dated August 5, 2003. (AMAT/5998PC)	
mpd	C2	PCT International Search Report for PCT/US04/17691, dated November 16, 2004. (AMAT/5699.PC03)	
mpd	C3	PCT Written Opinion for PCT/US04/17691, dated November 16, 2004. (AMAT/5699.PC03)	
mpd	C4	Besser et al., "Mechanical Strain Evolution in Cu/low K Interconnect Lines", <i>Mat. Res. Soc. Symp. Proc.</i> Vol. 795, 2004 Materials Research Society, pp. U1.1.1-U1.1.6.	
mpd	C5	Chandrasekaran, et al., "Effects of CMP Process Conditions on Defect Generation in Low-k Materials", <i>Journal of The Electrochemical Society</i> , pp. G882-G889 (2004).	
mpd	C6	Chang, et al., "Microleveling Mechanisms and Applications of Electropolishing of Planarization of Copper Metallization", <i>J. Vac. Sci. Technol. B</i> 20(5), Sep/Oct 2002, pp. 2149-2152.	
mpd	C7	Chang, et al., "Superpolishing of Planarizing Copper Damascene Interconnects", <i>Electrochemical and Solid-State Letters</i> , pp. G72-G74 (2003).	
mpd	C8	Contolini, et al., "Electrochemical Planarization for Multilevel Metallization", <i>J. Electrochem. Soc.</i> , Vol. 141, No. 9, September 1994, pp. 2503-2510.	
mpd	C9	Du, et al., "Mechanism of Copper Removal During CMP in Acidic H <sub>2</sub> O <sub>2</sub> Slurry", <i>Journal of The Electrochemical Society</i> , pp. G230-235 (2004).	
mpd	C10	Hu, et al. "Copper Interconnection Integration and Reliability", <i>Thin Solid State Films</i> , pp. 84-92, (1995).	
mpd	C11	Jin-Hua, et al., "An XPS and BAW Sensor Study of the Structure and Real-Time Growth Behaviour of a Complex Surface Film on Copper in Sodium Chloride Solutions (pH=9), Containing a Low Concentration of Benzotriazole", <i>Eletrochimica Acta</i> , Vol. 43, Nos 3-4, pp. 265-274, 1998.	

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md	C12	Kaufman, et al., "Chemical-Mechanical Polishing for Fabricating Patterned W Metal Features as Chip Interconnects", <i>J. Electrochem. Soc.</i> , Vol. 138, No. 11, November 1991; The Electrochemical Society, Inc. pp. 3460-3465.	
md	C13	Kondo, et al., "Role of Additives for Copper Damascene Electrodeposition: Experimental Study on Inhibition and Acceleration Effects", <i>Journal of The Electrochemical Society</i> , pp. C250-C255 (2004)	
md	C14	Padhi, et al., "Planarization of Copper Thin Films by Electropolishing in Phosphoric Acid for ULSI Applications", <i>Journal of the Electrochemical Society</i> , 150, pp. G10-G14 (2003).	
md	C15	Qafsaoui, et al., "Quantitative Characterization of Protective Films Grown on Copper in the Presence of Different Triazole Derivative Inhibitors", <i>Electrochimica Acta</i> 47 (2002), pp. 4339-4346.	
md	C16	Tamilmani, et al., "Potential-pH Diagrams of Interest to Chemical Mechanical Planarization of Copper", <i>Journal of The Electrochemical Society</i> , V. 149, pp. G638-G642 (2002).	
md	C17	Tromans, et al., "Growth of Passivating CuBTA Films on Copper in Aqueous Chloride/Benzotriazole Solutions", <i>Electrochemical and Solid-State Letter</i> , V. 5, pp. B5-B8 (2002).	
md	C18	Wang, et al., "Inhibition Effect of AC-Treated, Mixed Self-Assembled Film of Phenylthiourea and 1-Dodecanethiol on Copper Corrosion", <i>Journal of The Electrochemical Society</i> , pp. B11-B15 (2004).	

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